I. Course Description: (brief paragraph)

(Lecture, 3 credit hours) Structure and function of the human nervous system, including an introduction to issues of development and neural dysfunction that can interfere with behavior. The class typically meets once per week for a 150-minute segment for 15 weeks, and meets for a 2-hour final examination. Students have three exams in the semester, and three laboratory meets where they write reports. These activities average a minimum of 6 hours of work per week to prepare outside of classroom hours.

This course has a course fee of $50 related to supplies that students will use to perform their own quantitative encephalography (EEG) at the Human Neuroscience Laboratory.

Pre-requisites: Acceptance into graduate school

II. Intended Learning Outcomes/Goals/Objectives (Program/Student Learning Outcomes):

This course reflects the following core values of the College of Education:

- Academic excellence through critical, reflective, and creative thinking
- Life-long learning
- Collaboration and shared decision-making
- Openness to new ideas, to culturally diverse people, and to innovation and change
- Integrity, responsibility, diligence, and ethical behavior

Service that enriches the community

The mission of the College of Education is to prepare competent, successful, caring, and enthusiastic professionals dedicated to responsible service, leadership, and continued professional and intellectual development.

The goals of this course are closely aligned to those of the College of Education (COE), which is to prepare competent, successful, caring and enthusiastic professionals dedicated to responsible service, leadership, and continued professional and intellectual development. As a preliminary step in this process the knowledge obtained in this course will enable candidates to develop the requisite...
knowledge, skills, and dispositions necessary for admission into the COE Teacher Certification
Program.

This course also supports the mission of the Human Services Department.
The mission of the College of Education is to prepare competent, successful, caring, and enthusiastic
professionals dedicated to responsible service, leadership, and continued professional and
intellectual development.

Program Learning Outcomes:
PLO 1
Practical Knowledge
• Answer demonstrates a clear and precise understanding that school psychologists must be able to
use assessment strategies to gather information and define current problem areas. Response
addresses the need for assessing strengths and needs for individuals, groups, and systems.
• Answer provides at least one component or details suggesting that school psychologists must be
able to use assessment strategies to gather information and define current problem areas,
strengths, and needs for individuals, groups, and systems.
• Answer shows an insufficient understanding that school psychologists must be able to use
assessment strategies to gather information and define current problem areas. Candidate’s oral
defense provided no evidence to support knowledge in this domain.

PLO 1, 2, 5
Research and Program Evaluation
• Practical Knowledge, Content Knowledge and Application of Principles and Procedures
• Answer demonstrates a clear understanding of issues regarding the evaluation of research,
translating research into practice, and understanding research design and statistics in sufficient
depth to plan and conduct investigations and program evaluations for improvement of services.
• Response captures at least one primary strategy regarding the evaluation of research, translating
research into practice, or a clear understanding of research design and statistics.
• Candidate’s response is insufficient with regard to the essential features of research,
experimental design, and program evaluation. Candidate’s oral performance was likewise
inadequate with regard to demonstrating research skills.

PLO 1, 5
Information Technology
• Practical Knowledge and Application of Principles and Procedures
• Response indicates clear understanding and enthusiasm for being familiar with and being able to
evaluate the appropriateness of various technologies that impact the practice of their profession.
• Response provides at least two systems that show familiarity with technologies that impact the
practice of their profession.
Candidate’s response was insufficient in the identification and description of the critical features regarding this domain. Candidate’s oral defense was likewise inadequate with regard to demonstrating technological skills.

Student Learning Outcomes:
- At the end of EPS 580, a student who has learned and practiced material will be able to:
  - Explain the assumptions associated with best practice in brain-based school psychology [PLO 1]
  - Understand and communicate theories pertaining to human neuroscience [PLO 1, 2, 5]
  - Discuss the la. [PLO 1, 2]
  - Discuss how major neuroscientific principles, theories, and findings relate to children and school problems [PLO 1, 2, 5]
  - Identify different research methods utilized in the field of neuroscience that define normal and abnormal brain functioning [PLO 1, 5]

This course aligns with the National Association of School Psychologist (NASP) Model 10 Domains of Practice (applicable domains in bold). Practices that permeate all aspects of service delivery:

Domain 1: Data-Based Decision Making and Accountability School psychologists have knowledge of varied models and methods of assessment and data collection for identifying strengths and needs, developing effective services and programs, and measuring progress and outcomes.

Domain 2: Consultation and Collaboration School psychologists have knowledge of varied models and strategies of consultation, collaboration, and communication applicable to individuals, families, groups, and systems and methods to promote effective implementation of services. Direct and Indirect Services for Children, Families, and Schools

Domain 3: Interventions and Instructional Support to Develop Academic Skills School psychologists have knowledge of biological, cultural, and social influences on academic skills; human learning, cognitive, and developmental processes; and evidence-based curricula and instructional strategies.

Domain 4: Interventions and Mental Health Services to Develop Social and Life Skills School psychologists have knowledge of biological, cultural, developmental, and social influences on behavior and mental health, behavioral and emotional impacts on learning and life skills, and evidence-based strategies to promote social–emotional functioning and mental health.

Domain 5: School-Wide Practices to Promote Learning School psychologists have knowledge of school and systems structure, organization, and theory; general and special education; technology resources; and evidence-based school practices that promote learning and mental health.

Domain 6: Preventive and Responsive Services School psychologists have knowledge of principles and research related to resilience and risk factors in learning and mental health, services in schools and communities to support multitiered prevention, and evidence-based strategies for effective crisis response.
Domain 7: Family–School Collaboration Services School psychologists have knowledge of principles and research related to family systems, strengths, needs, and culture; evidence-based strategies to support family influences on children’s learning and mental health; and strategies to develop collaboration between families and schools. Foundations of School Psychological Service Delivery

Domain 8: Diversity in Development and Learning School psychologists have knowledge of individual differences, abilities, disabilities, and other diverse student characteristics; principles and research related to diversity factors for children, families, and schools, including factors related to culture, context, and individual and role difference; and evidence-based strategies to enhance services and address potential influences related to diversity.

Domain 9: Research and Program Evaluation School psychologists have knowledge of research design, statistics, measurement, varied data collection and analysis techniques, and program evaluation sufficient for understanding research and interpreting data in applied settings.

Domain 10: Legal, Ethical, and Professional Practice School psychologists have knowledge of the history and foundations of school psychology; multiple service models and methods; ethical, legal, and professional standards; and other factors related to professional identity and effective practice as school psychologists.

TEXT AND MATERIALS
Required

This course also supports the mission of the Human Services Department.
The mission of the College of Education is to prepare competent, successful, caring, and enthusiastic professionals dedicated to responsible service, leadership, and continued professional and intellectual development.

This course incorporates the Core Curriculum Objectives in the listings of course objectives and indicated in course assignments. Just as was required in the application for the inclusion in the core curriculum, faculty are asked to note how each core objective is met in the course schedule in terms of instruction and in the description of course assignments. The following lists the Core Curriculum Objectives with definitions that this course meets.

Critical Thinking. Description indicates how students will be instructed in critical thinking skills including creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. Communication. Students will be instructed in Communication Skills to include effective development, interpretation and expression of ideas through written, oral and visual communication.

Personal Responsibility. Students will be instructed in personal responsibility to include the ability to connect choices, actions and consequences to ethical decision-making.

Social Responsibility. Students will be instructed in intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

Empirical and Quantitative Skills. Students will be instructed in the interpretation of numerical data observable facts resulting in informed conclusions.
Teamwork. Students will be instructed in the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

COURSE REQUIREMENTS

READING
Reading course materials (i.e. the book) will impact students’ grades because portions of the exams will be on reading material that will not be covered in lecture. Reading course material will impact students’ grades because knowledge of the reading material will be required for class discussions and participation in these discussions is likely to lead to a deeper understanding of the material. Students are responsible for ALL assigned readings and should complete readings BEFORE the scheduled class meetings so that students can participate fully in class discussions.

ATTENDANCE
Students are expected to attend and participate in all class meetings. Students who are required to miss class due to participation in university-sanctioned activities or professional conferences must identify themselves prior to missing class and make arrangements to complete missed work. In addition, students must provide the instructor with a copy of their travel schedule.

EVALUATIONS

EXAMS
There will be three exams in the course each worth 100 points. The exams will be composed of multiple choice, short-answer and essay questions. There are no make ups unless prior arrangements have been made through the Office of Disability Services. THERE WILL BE NO MAKE-UPS. (Domain 1 and PLO1)

LAB
Two times during the semester, students will meet at the Human Neuroscience Laboratory to experience working with a modern neuroimaging technique (i.e. Quantitative Encephalogram). After each meeting students will be required to utilize and apply physiological concepts learned in lecture and from reading laboratory handouts to answer questions.

PAPER
Students will be also required to write 8-10-page research paper based on a topic related to the biological correlates of behavior in children. The purpose of the research paper is to work on brain based instructional strategies for children. In this paper the instructor will assign a case study of a child with a psychopathology (e.g. depression, anger, ADHD, autism, etc). The students should first describe the psychological and social characteristics of the disorder (20%), investigate the biomedical actions of the disorder (20%) and describe a brain-based instructional strategy that is appropriate for children with disorder when they are in school (20%). Finally, the student will describe why this instructional strategy will work based on a biopsychosocial model (40%). In other words, the student will describe what brain areas, neurotransmitters and/or pathways (via plasticity) are affected (according to research).
by the educational strategies and how such change will potentially help the disorder (Domain 1 and PLO1and 5). This paper should follow APA guidelines and there should be a minimum 10 references.

GRADING POLICY

1. Exam 1 = 100pts (20%)
2. Exam 2 = 100pts (20%)
3. Final Exam = 100pts (20%)
4. Laboratory Reports = 100pts (20%)
5. Paper = 100pts (20%)

500 pts (100%)

GRADES
A = 90-100%
B = 80–89%
C = 79-70%
D = 60-69%
F < 60%

EXTRA CREDIT
Students will have the opportunity throughout the semester to earn a maximum of 2 extra points (%) to be added to the final grade. These opportunities will be offered at the instructor’s discretion.

POSTING GRADES
Grades will be posted on D2L. When grades are posted, an announcement will be posted on D2L indicating the grades for that assignment or exam have been posted. Please do not e-mail or call inquiring if grades are posted until this announcement is posted. To protect student confidentiality, students’ performance cannot be reported or even discussed over the phone, e-mail, or instant message.

ACADEMIC INTEGRITY (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are
(1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

**Withheld Grades Semester Grades Policy (A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

**STUDENTS WITH DISABILITIES**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/

**DIVERSITY STATEMENT**

In this class, there will be an opportunity for students to learn about each other and gain an appreciation for the gender, ethnic, and cultural diversity. This course will highlight the importance of individual differences by teaching students that every person has strengths and weaknesses. Students will be invited to connect the class with their own background and experiences. At the same time, the instructor will not tolerate disrespectful, hurtful, or intolerant comments/behaviors regarding different backgrounds.

**FINAL NOTES**

The instructor reserves the right to change the syllabus as necessary. You are responsible for keeping up with all changes to the syllabus and for all information presented during class, regardless of whether or not you attended class.
# TENTATIVE COURSE SCHEDULE AND OTHER IMPORTANT DATES

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading</th>
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<tbody>
<tr>
<td>Jan 16</td>
<td>Course Introduction/Syllabus Review Intro to Biological Psychology Human Neuroscience</td>
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<tr>
<td>Jan 23</td>
<td>Essential Concepts and why Neuroscience is important for School Psychology</td>
<td>Getz Chapter 1</td>
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<tr>
<td>Jan 30</td>
<td>The Neuron</td>
<td>Getz Chapter 2 (Garrett Chapter 3 provided by Instructor)</td>
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<tr>
<td>Feb 06</td>
<td>The Nervous System, Brain Structures, Other systems and Functions</td>
<td>Getz Chapter 3 and 4 Sousa Chapter 1</td>
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<td>Feb 13</td>
<td>Psychopharmacology and Substance Abuse Disorders</td>
<td>Getz 4, 10 and 11</td>
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<tr>
<td>Feb 20</td>
<td>ADHD and Child Maltreatment</td>
<td>Getz Chapter 5 and Sousa Chapter 2 and 3</td>
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<td>Feb 27</td>
<td>Exam 1</td>
<td>Lab Report Due QEEG printout</td>
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<td>Mar 05</td>
<td>Laboratory Day 1</td>
<td>Lab Report Due QEEG printout</td>
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<tr>
<td>Mar 12</td>
<td>Spring Break</td>
<td>Lab Report Due QEEG printout</td>
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<tr>
<td>Mar 19</td>
<td>Schizophrenia and Mood Disorders</td>
<td>Getz Chapters 6 and 7</td>
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<tr>
<td>Mar 26</td>
<td>Anxiety, Eating and Sleep Disorders</td>
<td>Getz Chapters 8.9 and 10</td>
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<tr>
<td>April 02</td>
<td>Traumatic Brain Injuries, Personality and Medical disorders</td>
<td>Getz Chapters 12, 13 and 14</td>
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<td>April 09</td>
<td>Easter</td>
<td>Lab Report Due QEEG interpretation</td>
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<tr>
<td>April 16</td>
<td>Learning Disorders</td>
<td>TBA</td>
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<tr>
<td>April 23</td>
<td>Autism</td>
<td>TBA</td>
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<tr>
<td>April 30</td>
<td>Laboratory Day 2</td>
<td>Lab Report Due QEEG interpretation</td>
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**FINAL EXAM May 7th Same time as class**